Amendments to the Claims

This listing of claims will replace all prior versions and listings of claims in the application:

Listing of Claims

Claims 1-6. (Cancelled).

Claim 7. (Currently Amended): A method of treating a viral infection ~~treatment,~~ comprising administering to a patient suffering from the viral infection a therapeutic amount of a polypeptide having histidine ammonia lyase activity.

Claim 8. (Currently Amended): The ~~A~~ method ~~of treatment~~ according to claim 7, wherein the histidine ammonia lyase activity is about 40 IU/mg protein ~~and is not decreased in the presence of L-histidinol or a therapeutic salt thereof~~ and the polypeptide corresponds in sequence to histidine ammonia lyase of *Corynebacteriaceae* ~~or to a fragment thereof which includes the active site, wherein the polypeptide may comprise conservative substitutions relative to the sequence of histidine ammonia lyase of *Corynebacteriaceae*~~.

Claim 9. (Currently Amended): The ~~A~~ method according to claim 7 ~~claim 8~~, wherein the histidine ammonia lyase activity is not substantially decreased in the presence of L-histidinol or a therapeutic salt thereof.

Claim 10. (Currently Amended): The ~~A~~ method according to claim 9 ~~claim 8~~, further comprising administering a therapeutic amount of L-histidinol or a therapeutic salt thereof.

Claim 11. (Currently Amended): The ~~A~~ method according to claim 7 ~~claim 8~~, wherein the virus is selected from the group consisting of Herpes Virus Type 1, Herpes Simplex Virus Type 2, Varicella-Zoster Virus, Epstein-Barr virus, Cytomegalovirus, Respiratory Syncytial Virus, and Human Immunodeficiency Virus.

Claim 12. (Currently Amended): A method for treating a patient suffering from a cancer, comprising administering to the patient suffering from said cancer a therapeutic amount of a polypeptide having about 40 IU/mg protein of histidine ammonia lyase activity, wherein said

histidine ammonia lyase activity is not substantially decreased in the presence of L-histidinol or a therapeutic salt thereof and the polypeptide corresponds in sequence to histidine ammonia lyase of *Corynebacteriaceae* ~~or to a fragment thereof which includes the active site, wherein the polypeptide may comprise conservative substitutions relative to the sequence of histidine ammonia lyase of *Corynebacteriaceae*~~, and a therapeutic amount of L-histidinol or a therapeutic salt thereof.

Claim 13. (Previously Presented): A method for reducing toxicity to normal cells from chemotherapeutic agents or retroviral vectors, comprising

(i) administering to a patient a therapeutically effective amount of a polypeptide having histidine ammonia lyase activity, and

(ii) additionally administering to said patient a therapeutically effective amount of a chemotherapeutic agent or retroviral vector, whereby said polypeptide having histidine ammonia lyase activity selectively depletes circulating histidine and causes growth arrest in normal cells, without affecting the growth of tumor cells.

Claim 14. (Currently Amended): The ~~A~~ method according to claim 13, wherein upon the administration of said polypeptide, non-diseased cells of said patient enter a reversible quiescent state.

Claim 15. (Currently Amended): The ~~A~~ method according to claim 13, wherein the polypeptide is a modified polypeptide that comprises polyethylene glycol.

Claim 16. (Previously Presented): A method for delivering an immunosuppressant to a patient, comprising: administering to a patient a therapeutically effective amount of a polypeptide having histidine ammonia lyase activity, wherein said polypeptide generates trans-urocanic acid (t-UA) *in vivo*; and subjecting the patient to an irradiating agent, wherein said irradiating agent causes the photoisomerization of t-UA to its cis isomer (c-UA), and wherein said cis isomer comprises an immunosuppressive property.

Claim 17. (Currently Amended): The ~~A~~ method according to claim 16, wherein the irradiating agent is UVB irradiation, and wherein the polypeptide comprises polyethylene glycol.

Claim 18. (Currently Amended): The ~~A~~ method according to claim 17, wherein the patient has an immune system disorder.

Claim 19. (Currently Amended): The ~~A~~ method according to claim 18, wherein the UVB radiation is localized.

Claim 20. (Currently Amended): The ~~A~~ method according to claim 16, further comprising administering to the patient a transplanted organ.

Claims 21-27. (Cancelled).

Claim 28. (New): The method according to claim 7, wherein the polypeptide is selected from the group consisting of SEQ ID NOS: 1-5, 8-10, and 12.

Claim 29. (New): The method according to claim 7, wherein the polypeptide comprises conservative substitutions relative to the sequence of histidine ammonia lyase of *Corynebacteriaceae* and wherein the polypeptide maintains the histidine ammonia lyase activity.

Claim 30. (New): The method according to claim 29, wherein the polypeptide comprises SEQ ID NOS: 6 or 11, wherein each amino acid represented by an "X" is substituted with an amino acid from the corresponding position of the histidine ammonia lyase selected from the group consisting of *Corynebacteriaceae*, Streptomyces coelicolor, Agrobacterium rhizogenes, Vibrio cholerae, Pseudomonas aeruginosa, Bacillus halodurans, Pseudomonas aeruginosa, Thermoplasma acidophilum, Mus musculus, rat, uncultured bacterium pCosAS1, Rhizobium meiloti, and Halobacterium sp and wherein at least one of the amino acids represented by an "X" is not substituted with an amino acid from the corresponding position of the histidine ammonia lyase of *Corynebacteriaceae*.

Claim 31. (New): The method according to claim 12, wherein the polypeptide is selected from the group consisting of SEQ ID NOS: 1-5, 8-10, and 12.

Claim 32. (New): The method according to claim 12, wherein the polypeptide comprises conservative substitutions relative to the sequence of histidine ammonia lyase of *Corynebacteriaceae* and wherein the polypeptide maintains the histidine ammonia lyase activity.

Claim 33. (New): The method according to claim 31, wherein the polypeptide comprises SEQ ID NOS: 6 or 11, wherein each amino acid represented by an "X" is substituted with an amino acid from the corresponding position of the histidine ammonia lyase selected from the group consisting of *Corynebacteriaceae*, Streptomyces coelicolor, Agrobacterium rhizogenes, Vibrio cholerae, Pseudomonas aeruginosa, Bacillus halodurans, Pseudomonas aeruginosa, Thermoplasma acidophilum, Mus musculus, rat, uncultured bacterium pCosAS1, Rhizobium meiloti, and Halobacterium sp and wherein at least one of the amino acids represented by an "X" is not substituted with an amino acid from the corresponding position of the histidine ammonia lyase of *Corynebacteriaceae*.

Claim 34. (New): A method of treating a viral infection comprising administering to a patient suffering from the viral infection a therapeutic amount of a histidine analog having histidine ammonia lyase activity.

Claim 35. (New): The method according to claim 34, wherein the histidine ammonia lyase activity is about 40 IU/mg protein.

Claim 36. (New): The method according to claim 34, wherein the histidine ammonia lyase activity is not substantially decreased in the presence of L-histidinol or a therapeutic salt thereof.

Claim 37. (New): The method according to claim 34, further comprising administering a therapeutic amount of L-histidinol or a therapeutic salt thereof.

Claim 38. (New): The method according to claim 34, wherein the virus is selected from the group consisting of Herpes Virus Type 1, Herpes Simplex Virus Type 2, Varicella-Zoster Virus, Epstein-Barr virus, Cytomegalovirus, Respiratory Syncytial Virus, and Human Immunodeficiency Virus.